WHAT IS CLAIMED IS:

1. An automotive alternator comprising:

a stator having a stator core formed with slots extending axially at a predetermined pitch in a circumferential direction and a stator winding installed in said stator core;

a rotor rotatably disposed on an inner circumferential side of said stator; and

a bracket for supporting said stator and said rotor,

wherein a coil end group of said stator winding is constructed such that coil ends folded back outside said slots at an end surface of said stator core are arranged circumferentially,

wherein a predetermined region of outer surfaces of said coil ends in a radial direction of said stator core constitutes a circumferentially-smooth heat-conducting surface, said outer surfaces facing radially outwards from said stator core and extending from a vicinity of said end surface of said stator core to apex portions of said coil ends, and

wherein a distribution channel for a liquid coolant is disposed for absorbing heat generated in said stator and conducted from said heat-conducting surface.

2. The automotive alternator according to Claim 1 wherein said distribution channel is formed inside said bracket, a thermally-conductive resin being filled between said coil end group and said bracket in a state of general contact with said heat-conducting surface.

3. The automotive alternator according to Claim 1 wherein said distribution channel is constituted by a tube composed of a thermally-conductive material, a portion of said tube being disposed in a state of general contact with said heat-conducting surface of said coil end group.

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4. The automotive alternator according to Claim 1 wherein said stator winding is provided with a plurality of winding sub-portions each constructed by installing a strand of wire at intervals of a predetermined number of slots so as to alternately occupy an inner layer and an outer layer in a slot depth direction within said slots, turn portions of said strands of wire which are folded back outside said slots at said end surface of said stator core forming said coil ends and lining up generally uniformly in a circumferential direction to constitute said coil end group.

5. The automotive alternator according to Claim 4 wherein said strand of wire is formed with a rectangular cross-sectional shape, said heat-conducting surface being constituted by a flat side surface of said strand of wire.

6. The automotive alternator according to Claim 4 wherein said turn portions are disposed circumferentially so as to line up in a plurality of rows radially, radially-adjacent turn portions being in general contact with each other.

7. The automotive alternator according to Claim 6 wherein said strand of wire is formed with a rectangular cross-sectional shape, said heat-conducting surface being constituted by a flat side surface of said strand of wire.

8. The automotive alternator according to Claim 4 wherein said turn portions are disposed circumferentially such that intermediate portions of said turn portions are in close proximity with each other, said intermediate portions being between portions where said turn portions extend out from

said slots and portions where said turn portions are folded back.

9. The automotive alternator according to Claim 4 wherein a resin is filled between said turn portions such that a surface of said resin is positioned in a common plane with a surface of said strand of wire, said heat-conducting surface being constituted by a smooth surface composed of said surface of said strand of wire and said surface of said resin.

10. The automotive alternator according to Claim 4 wherein said strand of wire is a continuous wire.